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### **Remarks/Arguments**

Applicants wish to thank the Examiner for the careful review of the claims, specification and drawings.

In response to the Office Action mailed December 5, 2005, independent claims 1, 13 and 17 have been amended.

Dependent claims 2-12, 18, 21, and 26-29 have been amended.

After entry of this amendment, claims 1-29 are pending.

It is respectfully submitted that each and every feature recited in the amended drawing and/or amended claims are fully supported in the specification as filed. No new matter has been added.

### **Rejections under 35 USC 112**

The Office Action rejected claims 1, 2, 7, 13, 17, 18, and 21 under the second paragraph of 35 USC 112. The Office Action asserts that the words/phrase "would have been" and "if" renders the claims indefinite.

The Office Action rejected claims 1, 2, 7, 13, 17, 18, and 21 under the second paragraph of 35 USC 112. The Office Action asserts that the phrase "closely mimic" renders the claims indefinite because the meets and bounds of the claims are unclear.

Applicant has amended claim 1 to remove the objected conditional phrasing that the Examiner deems to render the claim indefinite. Amended claim 1 clearly points out that the first sharable data represents the data expected to be provisioned in a device model (i.e., the first device model) that is configured to model the data content of the first one of the plurality of devices. Applicant respectfully submits that amended claim 1 is clear and definite. The rejection under 35 USC 112 should be withdrawn.

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Similarly, applicant has amended claims 2, 7, 13, 17, 18, and 21 to remove the objected conditions that the Examiner deems to render the claim indefinite. Applicant respectfully submits that amended claims 2, 7, 13, 17, 18, and 21 are clear and definite. The rejection under 35 USC 112 should be withdrawn.

The phrase "closely mimic" has been amended to become "model." Specifically, the phrase "if said first device model had been configured to closely mimic" has been amended to become "that is configured to model". Applicant respectfully submits that the amended language is clear and definite. The rejection under 35 USC 112 based on this grounds should be withdrawn.

#### Rejections under 35 USC 101

The Office Action rejected claims 1-29 under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. The Office Action asserts that claims 1-29 are directed to a program, per se, not stored on a computer-readable medium in an executable format so as to enable a computer to execute a practical application with a useful, concrete and tangible result.

#### Claims 1-12

Applicant has amended independent claim 1 to meet statutory requirement under 35 USC 101 as followed:

1. (Currently amended) An article of manufacture comprising a program storage medium having computer readable code embodied therein, said computer readable code being configured to implement a software-implemented A  
~~software-implemented~~ shared bus system model for modeling a shared bus system that includes a plurality of devices interconnected via a shared bus, comprising:

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computer readable code implementing a first device model for partially modeling a first one of said plurality of devices, said first device model including a first modified logical module and a first modified I/O-specific module;

computer readable code implementing a sharable module having provisioned therein first shareable data, said first shareable data being shareable by said first device model and another device model of said plurality of device models, said first shareable data representing I/O-specific data associated with said first device model that is also needed by said another device model of said plurality of device models during configuration of said shared bus system model, said first shareable data further representing data expected to be that would have been provisioned within said first device model if ~~said first device model had been configured to closely mimic that is configured to model~~ the data content of said first one of said plurality of devices, said first shareable data instead being provisioned in said shareable module.

Applicant respectfully submits that amended claim 1 is statutory. The rejection under 35 USC 101 should be withdrawn.

Applicant has amended dependent claims 2-12 as followed, "The article of manufacture ~~The software implemented shared bus system model~~" for proper antecedent from its parent claim and to comply with statutory requirement under 35 USC 101.

Applicant respectfully submits that amended claims 1-12 are statutory. The rejection under 35 USC 101 should be withdrawn.

#### Claims 13-29

A rejection under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. Under 35 USC 101, the subject matter of the invention must come within the boundary set forth by 35 USC 101, which permits patents to be granted only for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." The term "process" as defined in 35 USC

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100, means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.

Applicant respectfully submits that claims 13-29 do not claim the software per se. Instead, claim 13-29 are computer-implemented method claims and are therefore statutory.

Applicant has amended dependent claims 26-29 to correct typographical errors as followed, "The software-implemented method ~~The software-implemented shared bus system model~~" for proper antecedent from parent claim.

Applicant respectfully submits that amended claims 13-29 are statutory. The rejection under 35 USC 101 should be withdrawn.

#### Rejections under 35 USC 103(a)

The Office Action rejected claims 1-4, 6, 7, 9, 10, 13, 15-21, 24, 27 and 28 under 35 USC 103(a) as being unpatentable over **A tool for the Design and Evaluation of Fiber Channel Storage Area Networks** by Xavier Molero et al herein "Molero", and US Patent 6,112,278 titled **Method to Store Initiator Information for SCSI Data Transfer** by Jackson L. Ellis herein "Ellis."

The Office Action rejected claims 5, 11, 12, 14, 22, 23, 25 and 29 under 35 USC 103(a) as being unpatentable over **A tool for the Design and Evaluation of Fiber Channel Storage Area Networks** by Xavier Molero et al herein "Molero", in view of U.S. Patent 6,112,278 titled **Method to Store Initiator Information for SCSI Data Transfer** by Jackson L. Ellis herein "Ellis and further in view of **Monitoring Parallel Interfaces in System Environment** by J. Sosnowski et al. herein "Sosnowski."

The Office Action rejected claims 8, 26 under 35 USC 103(a) as being unpatentable over **A tool for the Design and Evaluation of Fiber Channel Storage Area Networks** by Xavier Molero et al herein "Molero", in view of U.S. Patent 6,112,278 titled **Method to Store Initiator Information for SCSI Data Transfer** by Jackson L. Ellis herein "Ellis and further in view of U.S. Patent 5,825,752 titled **Local**

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**area network transferring data using isochronous and asynchronous channels by Fujimori Junichi herein "Junichi."**

**Independent claims**

A rejection under 35 USC 103(a) requires that the combined references suggest the claimed combination. (MPEP 706 and 2141 et seq.). Under the Graham test, three factors must be evaluated: the scope and content of the prior art; the differences between the prior art and the claimed invention; and the level of ordinary skill in the art. (MPEP 706 and 2141 et seq.).

There are three independent claims: 1, 13 and 17. Currently amended independent claim 1 is representative of the independent claims and recites:

1. (Currently amended) An article of manufacture comprising a program storage medium having computer readable code embodied therein, said computer readable code being configured to implement a software-implemented shared bus system model for modeling a shared bus system that includes a plurality of devices interconnected via a shared bus, comprising:

computer readable code implementing a first device model for partially modeling a first one of said plurality of devices, said first device model including a first modified logical module and a first modified I/O-specific module;

computer readable code implementing a sharable module having provisioned therein first shareable data, said first shareable data being shareable by said first device model and another device model of said plurality of device models, said first shareable data representing I/O-specific data associated with said first device model that is also needed by said another device model of said plurality of device models during configuration of said shared bus system model, said first shareable data further representing data expected to be ~~that would have been~~ provisioned within said first device model ~~if said first device model had~~

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~~been configured to closely mimic~~ that is configured to model the data content of said first one of said plurality of devices, said first shareable data instead being provisioned in said shareable module.

As described above, the claims require, in the manner claimed, "...a **shareable module** having provisioned therein **first shareable data**, said first shareable data being shareable by said **first device model** and **another device model** of said plurality of device models,..."

Applicant agrees with Examiner that Molero does not explicitly teach, "...a shareable module having provisioned therein first shareable data, said first shareable data being shareable by said first device model and another device model of said plurality of device models,..." nor mention that the system contains a shareable module having provisioned I/O specific data.

The Office Action argues that Ellis mentions a method of having several initiators with the same parameters, support for all initiators (devices) is provided by storing set of parameters (I/O data) and corresponding lists of initiator ID's in cache entries (part of shareable module). Based on the initiator ID in a selection command, the target selects the appropriate parameters and automatically transition to data transfer.

However, the cited reference, Ellis, is directed to an ACS or cache entries 430/440 are present in EACH target device to allow the target device to support a set of initiators in a low cost manner.

Unlike the present invention, Ellis does not teach/suggest that the models of target devices can access SHARED cached entries or ACS. In contrast, amended claim 1 requires, in the manner claimed, that the shareable module be accessible by the model of the multiple devices, with the shareable data including I/O-specific data associated with one of the device models that is also needed by said another device model. As such, Ellis could not have disclosed or taught that the shareable module that is shareable by multiple device models of amended claim 1.

This same limitation is also present in other independent claims, i.e., the requirement that there be a shareable module containing shareable data that is accessible

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by at least two device models, with the shareable data including I/O-specific data associated with one of the device models that is also needed by said another device model.

Thus, neither Molero nor Ellis, alone or in combination, discloses nor suggests, all features of the claims in the manner claimed in amended independent claims. In fact, the above-discussed deficiency of Molero and/or Ellis, among other deficiencies, is also not cured by Sosnowski and/or Junichi

Therefore, it is respectfully submitted that the pending independent claims (1, 13 and 17) are novel, non-obvious, and patentable over the cited art of record, taken alone or in combination.

#### Dependent Claims

The dependent claims 2-12, 14-16, and 18-29 are patentable due to their dependency on patentable parent claims and also due to their recitations of independently patentable features. For example, amended claim 7 and analogous claims also require that the shareable module further includes shareable logic, the shareable logic representing logic functions executable on behalf of the first device model and the second device model, the shareable logic further representing a logic function expected to be provisioned within each of said first device model and said second device model that are configured to model the logic capabilities of said first one of said plurality of devices and said second one of said plurality of devices respectively, the shareable logic instead being provisioned in said shareable module. As mentioned, the ACS and cached entries of Ellis are in each target device instead of being shared among multiple target devices. Accordingly, Ellis, alone or in combination with Molero or any other cited art, could not have taught or disclosed all features of amended claim 7.

It is respectfully requested that the rejections of these claims also be withdrawn.

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**Conclusion**

In view of the discussion herein, Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at 408-257-5500.

If any petition is required to facilitate the entry of the present amendment, please consider this communication a petition therefore as well. The Commissioner is authorized to charge any fees beyond the amount enclosed which may be required, or to credit any overpayment, to Deposit Account No. 50-2284 (Order No. ATECP001).

Respectfully submitted,

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